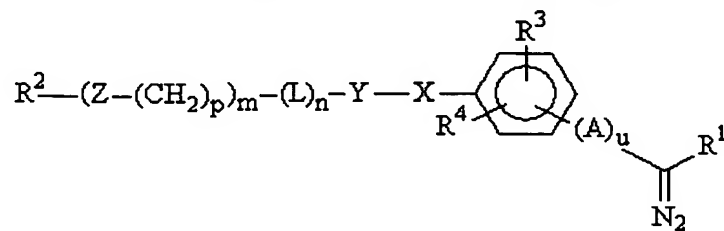


ABSTRACT

"Labeling reagents, methods for the synthesis of such reagents
and methods for the detection of biological molecules" - BIOMERIEUX S.A.

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The present invention relates to a temperature-stable labeling reagent of formula (0):



in which:

- R^1 represents H or an alkyl, aryl or substituted aryl group,
- 10 • R^2 represents a detectable marker or at least two detectable markers interlinked by at least one multimeric structure,
- L is a linker arm comprising a linear chain of at least two covalent bonds and n is an integer equal to 0 or 1,
- R^3 and R^4 represent, independently of one another: H, NO_2 , Cl, Br, F, I, $R^2-(L)_n-Y-X-$,
15 OR, SR, NR_2 , R, NHCOR , CONHR , COOR , $-\text{CO}-\text{NH}-(\text{CH}_2)_3-(\text{O}-\text{CH}_2-\text{CH}_2)_3-\text{CH}_2-\text{NH}-R^2$,
 $-\text{CO}-\text{NH}-(\text{CH}_2)_3-(\text{O}-\text{CH}_2-\text{CH}_2)_4-\text{CH}_2-\text{NH}-R^2$ with R = alkyl or aryl,
- A is a linker arm comprising at least one covalent double bond enabling the conjugation of the diazo function with the aromatic ring and u is an integer between 0 and 2, preferably 0 or 1,
- 20 • $-Y-X-$ represents $-\text{CONH}-$, $-\text{NHCO}-$, $-\text{CH}_2\text{O}-$, $-\text{CH}_2\text{S}-$,
- $-Z-$ represents $-\text{NH}-$, $-\text{NHCO}-$, $-\text{CONH}-$ or $-\text{O}-$,
- m is an integer between 1 and 10, preferably between 1 and 3, and
- p is an integer between 1 and 10, preferably between 1 and 3.

25 The present invention also describes a method for the synthesis of said labels and also applications for the labeling of biological molecules, in particular of nucleic acids, with a labeling reagent bearing the diazomethyl function.

The invention is particularly suitable for use in the field of diagnostics.